WHAT IS CLAIMED IS:

1. A method of inducing angiogenesis in a tissue of a first mammal, the method comprising the step of implanting at least one micro-organ within the tissue of the first mammal, said at least one micro-organ being for producing a plurality of angiogenic factors and thereby inducing angiogenesis.

2. The method of claim 1, wherein said at least one micro-organ is derived from organ tissue of a second mammal.

3. The method of claim 2, wherein the first mammal and said second mammal are a single individual mammal.

4. The method of claim 2, wherein said organ is selected from the group consisting of a lung, a liver, a kidney, a muscle, a spleen a skin and a heart.

5. The method of claim 1, wherein said at least one micro-organ includes two or more cell types.

6. The method of claim 1, wherein the first mammal is a human being.

7. The method of claim 1, wherein said at least one micro-organ is cultured outside the body for at least four hours prior to implantation within the tissue of the first mammal.

8. The method of claim 1, wherein said at least one micro-organ is prepared so as to retain viability when implanted within the tissue of the first mammal.

9. The method of claim 8, wherein said at least one micro-organ has dimensions, such that cells positioned deepest within said at least one micro-organ are at least about 80 - 100 microns and not more than about 225-375 microns away from a nearest surface of said at least one micro-organ.

10. The method of claim 1, wherein each of said plurality of angiogenic factors posses a unique expression pattern within said at least one micro-organ.

11. The method of claim 1, wherein at least a portion of cells of said at least one micro-organ include at least one exogenous polynucleotide sequence selected for regulating angiogenesis.

12. The method of claim 11, wherein said at least one exogenous polynucleotide sequence is integrated into a genome of said at least a portion of said cells of said at least one micro-organ.

13. The method of claim 12, wherein said at least one exogenous polynucleotide sequence is designed for regulating expression of at least one angiogenic factor of said plurality of angiogenic factors.

14. The method of claim 13, wherein said at least one exogenous polynucleotide sequence includes an enhancer or a suppresser sequence.

15. The method of claim 11, wherein an expression product of said at least one exogenous polynucleotide sequence is capable of regulating the expression of at least one angiogenic factor of said plurality of angiogenic factors.

16. The method of claim 11, wherein said at least one exogenous polynucleotide sequence encodes at least one recombinant angiogenic factor.

17. A method of inducing angiogenesis in a tissue of a first mammal, the method comprising:

(a) extracting soluble molecules from at least one micro-organ; and

(b) administering at least one predetermined dose of said soluble molecules extracted in step (a) into the tissue of the first mammal.

18. The method of claim 17, wherein said soluble molecules are mixed with a pharmaceutically acceptable carrier prior to step (b).

19. The method of claim 17, wherein said at least one micro-organ is derived from organ tissue of a second mammal.

20. The method of claim 17, wherein said at least one micro-organ is cultured at least four hours prior to extraction of said soluble molecules.

21. The method of claim 17, wherein said at least one micro-organ has dimensions, such that cells positioned deepest within said at least one micro-organ are at least about 80 - 100 microns and not more than about 225-375 microns away from a nearest surface of said at least one micro-organ.

22. A pharmaceutical composition comprising, as an active ingredient, a soluble molecule extract from at least one micro-organ and a pharmaceutically acceptable carrier.

23. A micro-organ comprising a plurality of cells, wherein at least a portion of said plurality of said cells including at least one exogenous polynucleotide sequence, said at least one exogenous polynucleotide sequence being capable of regulating expression of at least one angiogenic factor expressed in said cells.

24. The micro-organ of claim 23, wherein the micro-organ is derived from organ tissue of a second mammal.

25. The micro-organ of claim 24, wherein the first mammal and said second mammal are a single individual mammal.

26. The micro-organ of claim 23, wherein said organ is selected from the group consisting of a lung, a liver, other gut derived organs, a kidney, a spleen and a heart.

27. The micro-organ of claim 23, wherein said at least one micro-organ includes two or more cell types.

28. The micro-organ of claim 23, wherein the micro-organ has dimensions, such that cells positioned deepest within the micro-organ are at least about 80 - 100 microns and not more than about 225 - 375 microns away from a nearest surface of the micro-organ.

29. The micro-organ of claim 23, wherein said at least one exogenous polynucleotide sequence is integrated into a genome of said at least a portion of said plurality of said cells.

30. The micro-organ of claim 23, wherein said at least one exogenous polynucleotide sequence includes an enhancer or a suppressor sequence.

31. The micro-organ of claim 23, wherein an expression product of said at least one exogenous polynucleotide sequence is capable of regulating the expression of said at least one angiogenic factor.

32. A method of inducing angiogenesis in a tissue of a first mammal, the method comprising:

(a) culturing at least one micro-organ in a growth medium to thereby generate a conditioned medium;

(b) collecting said conditioned medium following at least one predetermined time period of culturing; and

(c) administering at least one predetermined dose of said conditioned medium collected in step (b) into the tissue of the first mammal to thereby induce angiogenesis in the tissue.

33. The method of claim 32, wherein said at least one micro-organ is derived from organ tissue of a second mammal.

34. The method of claim 32, wherein said at least one micro-organ is cultured at least four hours prior to collection of said conditioned medium.

35. The method of claim 32, wherein said at least one micro-organ has dimensions, such that cells positioned deepest within said at least one micro-organ are at least about 80 - 100 microns and not more than about 225-375 microns away from a nearest surface of said at least one micro-organ.

36. The method of claim 32, wherein said growth medium is a minimal essential medium.

37. An apparatus for generating micro-organs from a tissue biopsy and for administering the micro-organs into a subject, the apparatus comprising:

(a) a cutting chamber for cutting the tissue biopsy into a plurality of micro-organs; and

(b) an implanting mechanism for administering the plurality of micro-organs into the subject, said implanting mechanism being operably coupled to said cutting chamber.

38. The apparatus of claim 37, wherein said cutting chamber has an inlet/outlet for introducing and removing reagents.

39. The apparatus of claim 37, wherein said cutting chamber has an inlet for introducing the tissue biopsy therein.

40. The apparatus of claim 37, further comprising a viability testing chamber operably coupled to said cutting chamber for testing a viability of at least one sacrificial micro-organ of said plurality of micro-organs.

41. The apparatus of claim 37, wherein said implanting mechanism comprises a multi-channel implanter and corresponding advancing elements for advancing said plurality of micro-organs from said cutting chamber to said multi-channel implanter and further for administering the plurality of micro-organs into the subject.

42. The apparatus of claim 37, further comprising a processing chamber being operably coupled to said cutting chamber and said implanting mechanism for processing said micro-organs prior to said administering.

43. The apparatus of claim 42, wherein said processing chamber has an inlet/outlet for introducing and removing processing reagents.

44. The apparatus of claim 37, wherein said cutting chamber is designed and constructed such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from a nearest surface of said micro-organ.

45. The apparatus of claim 37, wherein said cutting chamber comprises a cutting mechanism having a plurality of blades movable to cut the tissue biopsy into said plurality of micro-organs.

46. The apparatus of claim 45, wherein said blades are so disposed with respect to one another such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80-100 microns and not more than 225-375 microns away from a nearest surface of said micro-organ.

47. The apparatus of claim 37, wherein said implanting mechanism comprises a syringe-operated micro-forceps, inserted within a hyperemic needle of said syringe, said hyperemic needle being operative for administering the micro-organs into the subject.

48. The apparatus of claim 41.1, wherein said syringe-operated micro-forceps is further operative for removing the micro-organs from said apparatus and into said hyperemic needle.

49. An apparatus for generating micro-organs from a tissue biopsy, the apparatus comprising:

(a) a cutting chamber for cutting the tissue biopsy into a plurality of micro-organs; and

(b) a viability testing chamber operably coupled to said cutting chamber for testing a viability of at least one sacrificial micro-organ of said plurality of micro-organs.

50. The apparatus of claim 49, wherein said cutting chamber has an inlet/outlet for introducing and removing reagents.

51. The apparatus of claim 49, wherein said cutting chamber has an inlet for introducing the tissue biopsy therein.

52. The apparatus of claim 49, wherein said cutting chamber is designed and constructed such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from a nearest surface of said micro-organ.

53. The apparatus of claim 49, wherein said cutting chamber comprises a cutting mechanism having a plurality of blades movable to cut the tissue biopsy into said plurality of micro-organs.

54. The apparatus of claim 53, wherein said blades are so disposed with respect to one another such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225 - 375 microns away from a nearest surface of said micro-organ.

55. The apparatus of claim 53, wherein each of said plurality of blades has a translatable angled cutting edge.

56. The apparatus of claim 53, wherein each of said plurality of blades is a rotable disc-blade.

57. An apparatus for generating micro-organs from a tissue biopsy, the apparatus comprising:

(a) a cutting chamber for cutting the tissue biopsy into a plurality of micro-organs;

(b) a processing chamber being operably coupled to said cutting chamber for processing said micro-organs; and

(c) an advancing mechanism for advancing said micro-organs from said cutting chamber into said processing chamber.

58. The apparatus of claim 57, wherein said processing chamber has an inlet/outlet for introducing and removing processing reagents.

59. The apparatus of claim 57, wherein said cutting chamber has an inlet/outlet for introducing and removing reagents.

60. The apparatus of claim 57, wherein said cutting chamber has an inlet for introducing the tissue biopsy therein.

61. The apparatus of claim 57, wherein said cutting chamber is designed and constructed such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from a nearest surface of said micro-organ.

62. The apparatus of claim 57, wherein said cutting chamber comprises a cutting mechanism having a plurality of blades movable to cut the tissue biopsy into said plurality of micro-organs.

63. The apparatus of claim 62, wherein said blades are so disposed with respect to one another such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from a nearest surface of said micro-organ.

64. The apparatus of claim 62, wherein each of said plurality of blades has a translatable angled cutting edge.

65. The apparatus of claim 62, wherein each of said plurality of blades is a rotable disc-blade.

66. A method of generating micro-organs from a tissue biopsy and for administering the micro-organs into a subject, the method comprising:

providing an apparatus which comprises:

(a) a cutting chamber for cutting the tissue biopsy into a plurality of micro-organs; and

(b) an implanting mechanism for administering the plurality of micro-organs into the subject, said implanting mechanism being operably coupled to said cutting chamber.

placing the tissue biopsy is said cutting chamber and cutting the tissue biopsy into the plurality of micro-organs; and

using said implanting mechanism for administering the plurality of micro-organs into the subject.

67. The method of claim 66, wherein the micro-organs serve as angiopumps.

68. The method of claim 66, wherein said cutting chamber has an inlet/outlet for introducing and removing reagents, the method further comprising washing said micro-organs in said cutting chamber prior to using said implanting mechanism for administering the plurality of micro-organs into the subject.

69. The method of claim 66, wherein said cutting chamber has an inlet for introducing the tissue biopsy therein, the method comprising placing the tissue biopsy is said cutting chamber through said inlet.

70. The method of claim 66, wherein said apparatus further comprises a viability testing chamber operably coupled to said cutting chamber for testing a viability of at least one sacrificial micro-organ of said plurality of micro-organs, the method further comprising testing said viability of said at least one sacrificial micro-organ of said plurality of micro-organs prior to using said implanting mechanism for administering the plurality of micro-organs into the subject.

71. The method of claim 66, wherein said implanting mechanism comprises a multi-channel implanter and corresponding advancing elements for advancing said plurality of micro-organs from said cutting chamber to said multi-channel implanter and further for administering the plurality of micro-organs into the subject, the method comprising administering the plurality of micro-organs into the subject using said advancing elements.

72. The method of claim 66, further comprising a processing chamber being operably coupled to said cutting chamber and said administration mechanism for processing said micro-organs prior to said administering, the method further comprising processing said micro-organs prior to said administering.

73. The method of claim 72, wherein said processing said micro-organs prior to said administering comprises at least one a process selected from the group consisting of washing, transforming, culturing, and a combination thereof.

74. The method of claim 72, wherein said processing said micro-organs prior to said administering comprises culturing for at least one hour.

75. The method of claim 72, wherein said processing said micro-organs prior to said administering comprises transforming by introducing to at least a

portion of cells of said micro-organs at least one exogenous polynucleotide sequence selected for regulating angiogenesis.

76. The method of claim 75, wherein said at least one exogenous polynucleotide sequence is integrated into a genome of said at least said portion of said cells of said micro-organs.

77. The method of claim 76, wherein said at least one exogenous polynucleotide sequence is designed for regulating expression of at least one angiogenic factor of said plurality of angiogenic factors.

78. The method of claim 77, wherein said at least one exogenous polynucleotide sequence includes an enhancer or a suppresser sequence.

79. The method of claim 75, wherein an expression product of said at least one exogenous polynucleotide sequence is capable of regulating the expression of at least one angiogenic factor of said plurality of angiogenic factors.

80. The method of claim 75, wherein said at least one exogenous polynucleotide sequence encodes at least one recombinant angiogenic factor.

81. The method of claim 72, wherein said processing chamber has an inlet/outlet for introducing and removing processing reagents, the method comprising introducing at least one processing reagent into said processing chamber through said inlet/outlet.

82. The method of claim 66, wherein said cutting chamber is designed and constructed such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from a nearest surface of said micro-organ, the method further comprising using said cutting chamber to cut the tissue biopsy into said plurality of micro-organs each of said micro-organs such that cells positioned

deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from said nearest surface of said micro-organ.

83. The method of claim 66, wherein said cutting chamber comprises a cutting mechanism having a plurality of blades movable to cut the tissue biopsy into said plurality of micro-organs, the method comprising using said plurality of blades to cut the tissue biopsy into said plurality of micro-organs.

84. The method of claim 83, wherein said blades are so disposed with respect to one another such that once the tissue biopsy is cut into said plurality of micro-organs, each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from a nearest surface of said micro-organ, the method comprising using said plurality of blades to cut the tissue biopsy into said plurality of micro-organs each of said micro-organs such that cells positioned deepest within a micro-organ of said plurality of micro-organs are at least about 80 - 100 microns and not more than 225-375 microns away from said nearest surface of said micro-organ.

85. The method of claim 83, wherein each of said plurality of blades has a translatable angled cutting edge, the method comprising translating said angled cutting edge with respect to the tissue biopsy, so as to cut the tissue biopsy into said plurality of micro-organs.

86. The method of claim 83, wherein each of said plurality of blades is a ratable disc-blade, the method comprising moving said ratable disc-blade with respect to the tissue biopsy, so as to cut the tissue biopsy into said plurality of micro-organs.

87. The method of claim 66, wherein the tissue biopsy is derived from a tissue or organ selected from the group consisting of lung, liver, kidney, muscle, spleen, skin, heart, lymph node and bone marrow.

88. The method of claim 66, wherein a donor of the tissue biopsy and the subject are the same individual.

89. The method of claim 66, wherein a donor of the tissue biopsy and the subject are different individuals.

90. The method of claim 66, wherein a donor of the tissue biopsy is a human.

91. The method of claim 66, wherein a donor of the tissue biopsy is a non-human mammal.

92. The method of claim 66, wherein the subject is a non-human mammal.

93. The method of claim 66, wherein the subject is a human.

94. The method of claim 66, wherein administering the plurality of micro-organs into the subject is effected via transmucosal or parenteral administration routes.

95. The method of claim 94, wherein said transmucosal or parenteral administration routes are selected from the group consisting of intramuscular, subcutaneous, intramedullary, intrathecal, direct intraventricular, intravenous, inrtaperitoneal, intranasal and intraocular administration routes.

96. A device for micro-organ preparation and delivery, comprising:

a tissue cutter, for cutting a tissue biopsy into a plurality of fragments, forming a plurality of micro-organs: and

at least one implanting device, detachably coupled to said tissue cutter, for receiving a micro-organ, of said plurality of micro-organs, when coupled to said

tissue cutter, and for implanting said micro-organ into a subject, after decoupling from said tissue cutter.

97. The device of claim 96, further comprising a tissue scraper, for obtaining said tissue biopsy.

98. The device of claim 97, wherein said tissue scraper is adapted for preparing said tissue biopsy to a predetermined width.

99. The device of claim 97, wherein said tissue scraper is adapted for preparing said tissue biopsy to a predetermined length.

100. The device of claim 97, wherein said tissue scraper is adapted for preparing said tissue biopsy to a predetermined thickness.

101. The device of claim 97, wherein said tissue scraper has a replaceable blade.

102. The device of claim 96, wherein said device is sealed within a base, a ramp, and a casing.

103. The device of claim 96, wherein said device includes a control system.

104. The device of claim 96, wherein said device includes at least one automated travel mechanism for transferring the tissue biopsy from one region of said device to another.

105. The device of claim 96, wherein said device includes a washing apparatus for rinsing the tissue biopsy.

106. The device of claim 105, wherein said washing apparatus is further operative for applying a medium to the tissue biopsy.

107. The device of claim 96, wherein said device is further operative as a tissue treatment chamber.

108. The device of claim 96, wherein said device includes apparatus for controlling the temperature therein.

109. The device of claim 96, wherein said tissue cutter comprises a plurality of parallel, surgical-grade blades, designed to cut the tissue biopsy into said plurality of fragments, forming said micro-organs, such that cells positioned deepest within any one of said micro-organs are at least about 80 – 100 microns and not more than about 225 - 375 microns away from a nearest surface.

110. The device of claim 96, wherein said tissue cutter comprises a plurality of parallel surgical-grade blades, arranged at an angle to the tissue biopsy.

111. The device of claim 96, wherein said tissue cutter comprises a plurality of parallel surgical-grade blades, arranged as rotable disc-blades.

112. The device of claim 96, wherein said device comprises a viability testing chamber for testing a viability of at least one micro-organ of said plurality of micro-organs.

113. The device of claim 96, wherein said tissue cutter is operative to cut the tissue biopsy, to form said micro-organs, and to arrange each of said micro-organs on a single guide of a plurality of guides, in a single operation.

114. The device of claim 113, wherein said at least one implanting device includes a slim housing, adapted for percutaneous insertion, and operable to receive one of said plurality of guides.

115. The device of claim 113, wherein said at least one implanting device includes a plurality of implanting devices, each operable to receive one of said plurality of guides.

116. The device of claim 113, wherein each of said plurality of micro-organ guides includes a position marker for indicating when said micro-organ, arranged on it, is positioned for implanting.

117. The device of claim 113, wherein each of said micro-organ guides includes a notch for breaking off a distal portion thereof, to allow said micro-organ, arranged on it, to form a leading edge.

118. The device of claim 113, wherein each of said plurality of micro-organ guides includes a position marker for indicating when said micro-organ, arranged on it, is implanted.

119. The device of claim 96, wherein said device is disposable.

120. A method for micro-organ preparation and delivery, comprising:

scraping a tissue biopsy;

cutting the tissue biopsy to a plurality of fragments, forming a plurality of micro-organs; and

implanting at least one of said plurality of micro-organs.

121. The method of claim 120, wherein said micro-organ serves as an angiopump.

122. The method of claim 120, and further including treating the tissue biopsy, prior to implanting.

123. The method of claim 122, wherein said treating is selected from the group consisting of washing, transforming, culturing, and a combination thereof.

124. The method of claim 120, wherein:

said cutting further includes cutting to a first plurality of tissue fragments, forming a first plurality of micro-organs; and

said implanting further includes implanting a second plurality of fragments, wherein said second plurality is smaller than said first plurality by at least one,

wherein said method further includes using at least one of said first plurality of tissue fragments for a viability test.

125. The method of claim 120, wherein said cutting includes cutting the tissue biopsy into said plurality of fragments, forming said micro-organs, such that cells positioned deepest within any one of said micro-organs are at least about 80 microns and not more than about 375 microns away from a nearest surface.

126. The method of claim 120, wherein said implanting further includes implanting a plurality of micro-organs within a preselected area of said subject, for a predetermined area concentration of micro-organs.

127. The method of claim 120, wherein said implanting further includes implanting a plurality of micro-organs within a preselected volume of said subject, for a predetermined volume concentration of micro-organs.

128. A method for micro-organ preparation and delivery, comprising:

employing a device for micro-organ preparation and delivery, which includes:

a tissue scraper, for obtaining a tissue biopsy;

a tissue cutter, for cutting the tissue biopsy into a plurality of fragments, forming a plurality of micro-organs: and

at least one implanting device, detachably coupled to said tissue cutter, for receiving a micro-organ, of said plurality of micro-organs, when coupled to said tissue cutter, and for implanting said micro-organ into a subject, after decoupling from said tissue cutter;

scraping the tissue biopsy, with said tissue scraper;

cutting the tissue biopsy to said plurality of fragments, forming said plurality of micro-organs, with said tissue cutter;

mounting said micro-organ, of said plurality of micro-organs, on said at least one implanting device;

decoupling said at least one implanting device; and

implanting said micro-organ, with said at least one implanting device.

129. The method of claim 128, wherein said micro-organ serves as an angiopump.

130. The method of claim 128, wherein said device is sealed within a base, a ramp, and a casing.

131. The method of claim 128, wherein said device includes at least one automated travel mechanism for transferring the tissue biopsy from one region of said device to another.

132. The method of claim 128, wherein said tissue scraper is adapted for scraping said tissue to a predetermined width.

133. The method of claim 128, wherein said tissue scraper is adapted for scraping said tissue to a predetermined length.

134. The method of claim 128, wherein said tissue scraper is adapted for scraping said tissue to a predetermined thickness.

135. The method of claim 128, wherein said tissue scraper has a replaceable blade.

136. The method of claim 128, wherein said device includes a washing apparatus for rinsing the tissue biopsy.

137. The method of claim 128, wherein said washing apparatus is further operative for applying a medium onto the tissue biopsy.

138. The method of claim 128, and further including treating the tissue biopsy, prior to implanting.

139. The method of claim 138, wherein said treating is selected from the group consisting of washing, transforming, culturing, and a combination thereof.

140. The method of claim 128, wherein said device includes apparatus for controlling the temperature therein.

141. The method of claim 128, wherein said tissue cutter comprises a plurality of parallel, surgical-grade blades, designed to cut the tissue biopsy into said plurality of fragments, forming said micro-organs, such that cells positioned deepest within any one of said micro-organs are at least about 80 – 100 microns and not more than about 225 – 375 microns away from a nearest surface.

142. The method of claim 128, wherein said tissue cutter comprises a plurality of parallel surgical-grade blades, arranged at an angle to the tissue biopsy.

143. The method of claim 128, wherein said tissue cutter comprises a plurality of parallel surgical-grade blades, arranged as rotable disc-blades.

144. The method of claim 128, wherein said device comprises a viability testing chamber for testing a viability of at least one micro-organ of said plurality of micro-organs.

145. The method of claim 128, wherein said cutting further includes arranging each of said micro-organs on a single guide of a plurality of guides.

146. The method of claim 145, wherein said at least one implanting device includes a slim housing, adapted for percutaneous insertion, and operable to receive one of said plurality of guides.

147. The method of claim 145, wherein said at least one implanting device includes a plurality of implanting devices, each operable to receive one of said plurality of guides.

148. The method of claim 145, wherein each of said plurality of micro-organ guides includes a position marker for indicating when said micro-organ, arranged on it, is positioned for implanting.

149. The method of claim 145, wherein each of said micro-organ guides includes a notch for breaking off a distal portion thereof, to allow said micro-organ, arranged on it, to form a leading edge.

150. The method of claim 145, wherein each of said plurality of micro-organ guides includes a position marker for indicating when said micro-organ, arranged on it, is implanted.

151. The method of claim 128, wherein said method further includes disposing said device after one use.

152. The method of claim 128, wherein the tissue biopsy is derived from a tissue or organ selected from the group consisting of lung, liver, kidney, muscle, spleen, skin, heart, lymph node and bone marrow.

153. The method of claim 128, wherein a donor of the tissue biopsy and the subject are the same individual.

154. The method of claim 128, wherein a donor of the tissue biopsy and the subject are different individuals.

155. The method of claim 128, wherein a donor of the tissue biopsy is a human.

156. The method of claim 128, wherein a donor of the tissue biopsy is a non-human mammal.

157. The method of claim 128, wherein the subject is a non-human mammal.

158. The method of claim 128, wherein the subject is a human.

159. The method of claim 128, wherein said device includes a control system.

160. The method of claim 128, wherein:

said cutting further includes cutting to a first plurality of tissue fragments, forming a first plurality of micro-organs; and

said implanting further includes implanting a second plurality of micro-organs, wherein said second plurality is selected from the group consisting of a plurality which is equal to said first plurality, a plurality which is smaller than said second plurality by one, and a plurality which is smaller than said second plurality by two.

161. The method of claim 128, wherein:

said cutting further includes cutting to a first plurality of tissue fragments, forming a first plurality of micro-organs; and

said implanting further includes implanting a second plurality of fragments,

wherein said second plurality is smaller than said first plurality by one,

and wherein said method further includes using an edge fragment for a viability test.

162. The method of claim 128, wherein:

said cutting further includes cutting to a first plurality of tissue fragments, forming a first plurality of micro-organs; and

said implanting further includes implanting a second plurality of tissue fragments, wherein said second plurality is smaller than said first plurality by two,

wherein said method further includes:

using a first edge fragment for a viability test; and

discarding a second edge fragment.

163. The method of claim 128, wherein said cutting includes cutting the tissue biopsy into said plurality of fragments, forming said micro-organs, such that cells positioned deepest within any one of said micro-organs are at least about 80 microns and not more than about 375 microns away from a nearest surface.

164. The method of claim 128, wherein said cutting includes cutting the tissue biopsy into said plurality of fragments, forming said micro-organs, such that cells positioned deepest within any one of said micro-organs are at least about 100 microns and not more than about 225 microns away from a nearest surface.

165. The method of claim 128, wherein said implanting further includes implanting a plurality of micro-organs within a preselected area of said subject, for a predetermined area concentration of micro-organs.

166. The method of claim 128, wherein said implanting further includes implanting a plurality of micro-organs within a preselected volume of said subject, for a predetermined volume concentration of micro-organs.

167. The method of claim 128, wherein said tissue biopsy is a split-thickness tissue biopsy.

168. A micro-forceps comprising:

an elongated body, which defines an overall cross-sectional diameter of between 0.3 and 5 mm and proximal and distal ends, with respect to a target, said elongated body comprising:

two lips, at said proximal end, defining a clearance between them; and

a diametric increase, in the overall cross-sectional diameter, along said elongated body, adapted to force said two lips against each other, when a lateral force in the proximal direction is applied to said diametric increase.

169. The micro-forceps of claim 168, wherein said diametric increase is a fold along at least one of said lips.

170. The micro-forceps of claim 168, wherein said diametric increase is an incline along at least one of said lips.

171. The micro-forceps of claim 168, adapted for operation with a syringe, into which said elongated body may be inserted, wherein said syringe has an internal diameter that is smaller than said diametric increase, said syringe further having a piston fixedly attached to said distal end of said elongated body, so that as said piston is drawn into said syringe, a lateral force in the proximal direction is applied to said diametric increase, by said syringe, forcing said lips to close and grip said target.

172. The micro-forceps of claim 171 and further including a hyperemic needle, into which said elongated body may be inserted, wherein said hyperemic needle has an internal diameter that is smaller than said diametric increase, and wherein said hyperemic needle, manipulated by said syringe, is operative for applying said lateral force in the proximal direction, to said diametric increase, forcing said lips to close and grip said target.

173. The micro-forceps of claim 168, adapted for operation with a catheter, into which said elongated body may be inserted, wherein said catheter has an internal diameter that is smaller than said diametric increase, and wherein said catheter applies said lateral force in the proximal direction to said diametric increase, forcing said lips to close and grip said target.